Appendix Table 1. Physician and practice characteristics of office-based physicians with any EHR (n=1,727)

Physician characteristics           Age           Less than 50         43%           50 or over         57%           Specialty         Non Primary care         48%           Primary care         52%           Practice characteristics         5ize           1         13%         2           2         11%         3-5         24%           6-10         21%         11+         21%           Unknown         11%         0wnership           Physician or physician group         50%         Hospital/Academic medical center         17%           HMO/Other health care corporation         13%         Community health center         5%           Other/Unknown         15%         Single or multi-specialty         30%           Single specialty         60%         Multi-specialty         30%           Unknown         10%         Metropolitan status           MSA         87%         Non-MSA         13%           Region         Northeast         19%         Midwest         23%           South         34%         West         24%	Appendix rubic 1.1 Hybician and practice characteris	ties of office base
Less than 50       43%         50 or over       57%         Specialty       48%         Primary care       48%         Practice characteristics       52%         Size       11%         1       13%         2       11%         3-5       24%         6-10       21%         11+       21%         Unknown       11%         Ownership       50%         Hospital/Academic medical center       17%         HMO/Other health care corporation       13%         Community health center       5%         Other/Unknown       15%         Single or multi-specialty       60%         Multi-specialty       30%         Unknown       10%         Metropolitan status       MSA         NSA       87%         Non-MSA       13%         Region       Northeast       19%         Midwest       23%         South       34%	Physician characteristics	
50 or over       57%         Specialty       48%         Non Primary care       48%         Practice characteristics       52%         Size       1         1       13%         2       11%         3-5       24%         6-10       21%         11+       21%         Unknown       11%         Ownership       Physician or physician group         Physician or physician group       50%         Hospital/Academic medical center       17%         HMO/Other health care corporation       13%         Community health center       5%         Other/Unknown       15%         Single or multi-specialty       60%         Multi-specialty       30%         Unknown       10%         Metropolitan status       87%         Non-MSA       13%         Region       Northeast       19%         Nidwest       23%         South       34%	Age	
Specialty Non Primary care Primary care Practice characteristics Size  1 13% 2 11% 3-5 24% 6-10 21% 11+ 21% Unknown Unknown Hospital/Academic medical center HMO/Other health care corporation Community health center Other/Unknown Single or multi-specialty Single specialty Multi-specialty Multi-specialty Multi-specialty Midrown Metropolitan status MSA Non-MSA Region Northeast Northeast Midwest South Midwest South  48% Primary care 48% Primary car	Less than 50	43%
Non Primary care       48%         Primary care       52%         Practice characteristics       52%         Size       1         1       13%         2       11%         3-5       24%         6-10       21%         11+       21%         Unknown       11%         Ownership       50%         Physician or physician group       50%         Hospital/Academic medical center       17%         HMO/Other health care corporation       13%         Community health center       5%         Other/Unknown       15%         Single or multi-specialty       60%         Multi-specialty       30%         Unknown       10%         Metropolitan status       MSA         Non-MSA       87%         Non-MSA       13%         Region       Northeast       19%         Midwest       23%         South       34%	50 or over	57%
Primary care Practice characteristics  Size  1 13% 2 11% 3-5 24% 6-10 21% 11+ 21% Unknown 11% Ownership Physician or physician group 50% Hospital/Academic medical center 17% HMO/Other health care corporation 13% Community health center 5% Other/Unknown 15% Single or multi-specialty Single specialty 60% Multi-specialty 30% Unknown 10% Metropolitan status MSA 87% Non-MSA 87% Non-MSA 13% Region Northeast 19% Midwest 23% South 34%	Specialty	
Practice characteristics  Size  1	Non Primary care	48%
Size       1       13%         2       11%       3-5       24%         6-10       21%       11+       21%       11%         Unknown       11%       0wnership       11%       0wnership       50%       Hospital/Academic medical center       17%       HMO/Other health care corporation       13%       Community health center       5%       0ther/Unknown       15%       Single or multi-specialty       60%       Multi-specialty       30%       Unknown       10%       Metropolitan status       MSA       87%       Non-MSA       13%       Region       Northeast       13%       Region       Northeast       19%       Midwest       23%       South       34%	Primary care	52%
1       13%         2       11%         3-5       24%         6-10       21%         11+       21%         Unknown       11%         Ownership       Physician or physician group         Physician or physician group       50%         Hospital/Academic medical center       17%         HMO/Other health care corporation       13%         Community health center       5%         Other/Unknown       15%         Single or multi-specialty       60%         Multi-specialty       30%         Unknown       10%         Metropolitan status       87%         Non-MSA       13%         Region       Northeast       19%         Midwest       23%         South       34%	Practice characteristics	
2 11% 3-5 24% 6-10 21% 11+ 21% Unknown 11% Ownership Physician or physician group 50% Hospital/Academic medical center 17% HMO/Other health care corporation 13% Community health center 5% Other/Unknown 15% Single or multi-specialty Single specialty 60% Multi-specialty 30% Unknown 10% Metropolitan status MSA 87% Non-MSA 87% Non-MSA 13% Region Northeast 19% Midwest 23% South 34%	Size	
3-5       24%         6-10       21%         11+       21%         Unknown       11%         Ownership       50%         Physician or physician group       50%         Hospital/Academic medical center       17%         HMO/Other health care corporation       13%         Community health center       5%         Other/Unknown       15%         Single or multi-specialty       60%         Multi-specialty       30%         Unknown       10%         Metropolitan status       87%         Non-MSA       13%         Region       Northeast       19%         Midwest       23%         South       34%	1	13%
6-10 21% 11+ 21% Unknown 11%  Ownership Physician or physician group 50% Hospital/Academic medical center 17% HMO/Other health care corporation 13% Community health center 5% Other/Unknown 15%  Single or multi-specialty Single specialty 60% Multi-specialty 30% Unknown 10%  Metropolitan status MSA 87% Non-MSA 87% Non-MSA 13%  Region Northeast 19% Midwest 23% South 34%	2	11%
11+ 21% Unknown 11% Ownership Physician or physician group 50% Hospital/Academic medical center 17% HMO/Other health care corporation 13% Community health center 5% Other/Unknown 15% Single or multi-specialty Single specialty 60% Multi-specialty 30% Unknown 10% Metropolitan status MSA 87% Non-MSA 87% Non-MSA 13% Region Northeast 19% Midwest 23% South 34%	3-5	24%
Unknown 11% Ownership Physician or physician group 50% Hospital/Academic medical center 17% HMO/Other health care corporation 13% Community health center 5% Other/Unknown 15% Single or multi-specialty Single specialty 60% Multi-specialty 30% Unknown 10% Metropolitan status MSA 87% Non-MSA 87% Non-MSA 13% Region Northeast 19% Midwest 23% South 34%	6-10	21%
Ownership Physician or physician group Hospital/Academic medical center HMO/Other health care corporation Community health center Other/Unknown 15% Single or multi-specialty Single specialty Single specialty Multi-specialty Unknown 10% Metropolitan status MSA Non-MSA Region Northeast Northeast Midwest South 34%	11+	21%
Physician or physician group Hospital/Academic medical center HMO/Other health care corporation Community health center Other/Unknown 15% Single or multi-specialty Single specialty Multi-specialty Unknown 10% Metropolitan status MSA Non-MSA Region Northeast Northeast Midwest South	Unknown	11%
Hospital/Academic medical center 17% HMO/Other health care corporation 13% Community health center 5% Other/Unknown 15% Single or multi-specialty Single specialty 60% Multi-specialty 30% Unknown 10% Metropolitan status MSA 87% Non-MSA 87% Non-MSA 13% Region Northeast 19% Midwest 23% South 34%	Ownership	
HMO/Other health care corporation 13% Community health center 5% Other/Unknown 15% Single or multi-specialty Single specialty 60% Multi-specialty 30% Unknown 10% Metropolitan status MSA 87% Non-MSA 87% Non-MSA 13% Region Northeast 19% Midwest 23% South 34%	Physician or physician group	50%
Community health center 5% Other/Unknown 15% Single or multi-specialty Single specialty 60% Multi-specialty 30% Unknown 10% Metropolitan status MSA 87% Non-MSA 87% Non-MSA 13% Region Northeast 19% Midwest 23% South 34%	Hospital/Academic medical center	17%
Other/Unknown 15% Single or multi-specialty Single specialty 60% Multi-specialty 30% Unknown 10% Metropolitan status MSA 87% Non-MSA 13% Region Northeast 19% Midwest 23% South 34%	HMO/Other health care corporation	13%
Single or multi-specialty Single specialty Multi-specialty Unknown 10% Metropolitan status MSA Non-MSA 13% Region Northeast Northeast Midwest South 19% Midwest 34%	Community health center	5%
Single specialty 60% Multi-specialty 30% Unknown 10% Metropolitan status MSA 87% Non-MSA 13% Region Northeast 19% Midwest 23% South 34%	Other/Unknown	15%
Multi-specialty 30% Unknown 10% Metropolitan status MSA 87% Non-MSA 13% Region Northeast 19% Midwest 23% South 34%	Single or multi-specialty	
Unknown 10% Metropolitan status MSA 87% Non-MSA 13% Region Northeast 19% Midwest 23% South 34%	Single specialty	60%
Metropolitan status MSA 87% Non-MSA 13% Region Northeast 19% Midwest 23% South 34%	Multi-specialty	30%
MSA 87% Non-MSA 13% Region Northeast 19% Midwest 23% South 34%	Unknown	10%
Non-MSA 13% Region Northeast 19% Midwest 23% South 34%	Metropolitan status	
Region Northeast 19% Midwest 23% South 34%	MSA	87%
Northeast 19% Midwest 23% South 34%	Non-MSA	13%
Midwest 23% South 34%	Region	
South 34%	Northeast	19%
	Midwest	23%
West 24%	South	34%
	West	24%

Source: CDC/NCHS, Physician Workflow study, 2011.

Appendix Table 2. Incremental effects of EHR characteristics on probability that physicians reported EHR use led to clinical benefit (n=1,727)

	Overall, enhanced patient care	Helped you access a patient's chart remotely (e.g., to work from home)	potential	Alerted you to critical lab values	Helped you order more on- formulary drugs (as opposed to off-formulary drugs)	Reminded you to provide preventive care (e.g., vaccine, cancer screening)	Reminded you to provide care that meets clinical guidelines for patients with chronic conditions	Helped you order fewer tests due to better	Helped you identify needed lab tests (such as HbA1c or LDL)	Facilitated direct communication with a patient (e.g., email or secure messaging)
EHR meets meaningful use criteria	3	3	3	3	3	3	3	3	3	3
No or unknown	a	a	a	a	a	a	a	a	a	a
Yes	9.9 **	5.4	3.4	9.4 *	11.3 **	11.1 **	20.1 **	15.3 **	14.2 **	11.3 **
Length of experience with any EHR system										
1 year or less	a	a	a	a	a	a	a	a	a	a
2 years or more	25.4 **	16.4 **	16.0 **	12.1 **	7.6	14.9 **	9.6	9.0	12.5 **	9.7 *
Age										
50 or over	a	a	a	a	a	a	a	a	a	a
Less than 50	7.8 **	8.7 **	-0.4	8.9 **	4.4	-0.8	-0.9	-2.4	3.2	0.0
Specialty										
Non Primary care	a	a	a	a	a	a	a	a	a	a
Primary care	6.4 *	3.7	16.5 **	14.0 **	8.8 *	33.1 **	18.2 **	7.8 *	26.0 **	5.9
Size										
1	a	a	a	a	a	a	a	a	a	a
2	-7.3	6.5	8.7	10.9	-2.7	4.1	-8.0	8.6	-7.4	9.4
3-5	1.7	5.0	16.4 **	14.1 *	17.8 **	5.1	-1.3	0.8	-7.4	4.1
6-10	-1.7	-0.8	18.4 **	21.6 **	11.2	2.1	-6.2	1.3	-5.9	9.0
11+	1.7	3.2	18.6 **	30.2 **	15.4 *	6.2	-0.7	15.4 *	2.3	12.6 *
Unknown	3.5	1.5	17.1	22.2	-16.0	-9.7	-5.1	16.7	-11.8	22.6
Ownership										
Physician or physician group	a	a	a	a	_a	a	a	a	a	a
Hospital/Academic medical center	3.7	-7.6	-5.6	19.9 **	2.0	-4.6	-0.8	1.6	0.6	0.2
HMO/Other health care corporation	10.0 *	-2.6	13.7 *	15.2 *	14.2 *	21.5 **	20.1 **	6.9	9.7	22.6 **
Community health center	-14.2	-25.6 **	-3.9	12.1	-8.7	-5.6	-9.1	1.0	-3.3	-12.1
Other/Unknown	-2.2	-10.8	-6.7	2.0	-4.8	-1.9	13.7	1.2	1.9	-4.1
Single or multi-specialty										
Single specialty	a	a	a	a	a	a	a	a	a	a
Multi-specialty	1.3	4.5	12.0 **	10.2 *	5.9	4.6	8.9	14.6 **	14.2 **	8.1
Unknown	5.4	11.2	11.5	3.8	36.1 **	22.7	1.3	6.8	22.3	1.4
Metropolitan status										
MSA	a	a	a	a	a	a	a	a	a	a
Non-MSA	-7.4	-11.9 **	-0.4	-1.8	-1.2	4.7	4.2	-5.1	7.9 *	-9.0 *
Region										
Northeast	3.3	5.2	4.1	5.4	11.4 *	3.7	7.5	1.3	2.7	-1.1
Midwest	0.3	3.5	4.2	2.2	-0.9	3.2	5.0	-1.2	7.5	2.4
South	a	a	a	a	a	a	a	a	a	a
West	2.1	7.2	-0.4	7.7	1.4	8.7	12.8 *	6.3	8.8	5.5

a Reference category. \*\*(\*) Significantly different from zero at p<0.01(0.05). Analysis sample includes physicians using an EHR in 2011. Source: CDC/NCHS, Physician Workflow study, 2011.